

Henderson Water Utility

The City of Henderson, Kentucky

Information regarding the Wastewater Application

PURPOSE

The purpose of this application is three-fold. The first is to obtain information which will enable the City of Henderson's Water Utility to take appropriate actions to protect the integrity of the wastewater treatment facilities. It will also guide in the formulation and implementation of emergency procedures and to protect the public health and welfare.

This application is also necessary to conform to regulations imposed on the Henderson Water Utility by the Environmental Protection Agency. As the owner of a publicly owned treatment works (POTW), the City has a federally mandated Pretreatment Program. This Program was promulgated as a result of the Clean Water Act of 1977 (Public Law 95-217) and the General Pretreatment Regulations for Existing and New Sources of Pollution (40 CFR, Part 403).

Thirdly, this application will be used to derive information to apply to the Industrial User Permit for your particular process. It is crucial that the information you provide is as accurate and current as possible.

INTRODUCTION

The City of Henderson operates and maintains a 15.0 MGD wastewater treatment plant and interceptor sewer system that serves the city of Henderson and portions of Henderson county. The wastewater treatment plant utilizes the extended aeration modification of the activated sludge process. Numerous treatment processes are employed which include sedimentation, biological treatment to degrade and remove additional pollutant components, chlorination for disinfection and dewatering of excess solids for ultimate disposal.

The Extended Aeration Process employs the activated sludge treatment system. The process is called the activated sludge treatment system. The process utilizes bacteria and other microorganisms which utilize waste materials as food, thereby converting pollutants to carbon dioxide, water and new microorganisms (known as bio-mass or sludge). Because the treatment process involves living organisms, precautions must be taken for effective operations. The organisms in the biological treatment process can adjust to some materials passed into the treatment facilities; however, this adjustment is not instantaneous and requires a build-up of suitable microbial populations. Some pollutants will retard or destroy the organisms, preventing them from consuming organics or "doing their job", therefore effective treatment is hindered. This is why Pretreatment regulations on industrial sources exist.

Under normal conditions, this population will adjust to furnish maximum degradation of usable food sources effectively removing waste material from the incoming sewage and producing a high quality effluent.

Various modifications in plant operations are also possible to ensure bio-mass production despite changes in the characteristics of the influent which may have a detrimental effect on the treatment efficiency. When the microorganisms in the secondary treatment process are killed or partially inhibited by a toxic influent, many days are required to generate a new bio-mass and during this period, the plant effluent may not meet current state and federal water quality standards.

Henderson Water Utility has a continuous sampling program to characterize the wastewater influent to the plant. However, since the public system accepts inputs from numerous sanitary sewer systems and since many of the input points are miles away from the plant, there is a definite need to characterize wastewater influents close to the sources.

Therefore, as required by the EPA, a survey of industrial waste influents to the system is essential. Data obtained by the attached questionnaire will be handled statistically to furnish the H.W.U. with the necessary information to formulate, revise or re-issue Industrial User Discharge Permits. The information on this application must be as current and as accurate possible, especially in the following areas:

- Address changes
- Personnel changes (individuals that are signing and sending in required reports)
- Flow and production information (If production is higher or has dropped off)
- Process changes (Adding to or eliminating treatment areas)
- Pretreatment changes (if treatment has changed in any way)
- Company name changes (Contact Pretreatment Coordinator first)

INSTRUCTIONS

Please read ALL instructions carefully. This application must be filled out entirely. Missing information will make the application invalid and you will be required to complete it before a New or updated Discharge Permit can be issued. A separate application form should be completed for EACH company location. If you need additional forms, you may go to our website at <http://www.hkywater.org> or contact:

**Henderson Water Utility
Pretreatment Program
230 N. Alvasia Street
Henderson, Ky. 42420**

Telephone: (270) 826-2824

Certain questions will require specific information, which will have to be calculated from company operating records. Please read each question carefully and place the required information in the designated areas. If more space is required, please attach additional sheets to this application. Identify responses on supplemental sheets by question number.